

MAR 8 2006

K052989

**DP240**  
**240 HOUR DOPPLER PROBE**

**Appendix 2A**

**510(k) SUMMARY**

**(1) Submitter's information**

Name: Deltex Medical Limited  
Address: Terminus Road  
Chichester  
West Sussex  
PO19 8TX  
U.K.  
Official Correspondent: Lawrence Brookfield - Quality Assurance &  
Regulatory Affairs Manager  
Telephone: 011 44 1243 523174  
Fax: 011 44 1243 532534  
Date prepared: 18 October, 2005

**(2) Device Identification**

Proprietary name: 240 Hour Doppler Probe  
Common/usual name: DP240  
Classification name: Extravascular blood flow probe

**(3) Identification of predicate devices**

The DP240 is substantially equivalent to the following previously cleared devices:

Deltex Medical *CardioQ Probe* as described in 510(k) No. K031706.

Arrow International *Hemosonic 100 Esophageal Probe* as described in 510(k) No. K972798

#### **(4) Device Description and Intended Use**

When used in conjunction with the *CardioQ* cardiac output and fluid status monitoring system (K031706), the DP240 is designed to provide clinicians with real-time information about left-ventricular function by measuring blood flow in the descending thoracic aorta. The probe is designed to operate in a clinical setting in which patients are under general anesthesia or sedated in the intensive care unit.

The DP240 transmits a 4 MHz continuous wave ultrasonic 'carrier' signal from the probe tip at a fixed angle to the descending aorta, by excitation of a piezo-electric transducer. The ultrasound is reflected by the red blood cells and is received by a separate transducer in the probe tip.

The DP240 is placed orally or nasally and inserted into the esophagus to a depth of 35 – 45 cm, (approx. 14" – 18") for insonation of the descending thoracic aorta at the 6<sup>th</sup> thoracic vertebra (approximately). The shaft and tip of the DP240 is the only component in contact with the patient and is manufactured with an outer insulating cover of medical grade silicone rubber. The probe is flexible and has a shaft diameter of 14 French (~4.8 mm, approx. 0.18"). The probe is supplied sterile and is for single-use only in adults.

k052989



**DEPARTMENT OF HEALTH & HUMAN SERVICES**

**Public Health Service**

**Food and Drug Administration  
9200 Corporate Boulevard  
Rockville MD 20850**

**MAR 8 2006**

Mr. Lawrence Brookfield  
Quality Assurance & Regulatory Affairs Manager  
Deltex Medical Limited  
Terminus Road  
Chichester PO19 8TX  
U. K.

Re: K052989  
Trade Name: DP240 240 Hour Doppler Probe  
Regulation Number: 21 CFR 870.2120  
Regulation Name: Extravascular Blood Flow Probe  
Regulatory Class: Class II (two)  
Product Code: DPT  
Dated: January 30, 2006  
Received: February 2, 2006

Dear Mr. Brookfield:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to such additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

Page 2 – Mr. Lawrence Brookfield

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

This letter will allow you to begin marketing your device as described in your Section 510(k) premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus, permits your device to proceed to the market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please contact the Office of Compliance at (240) 276-0120. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR Part 807.97). You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 443-6597 or at its Internet address <http://www.fda.gov/cdrh/industry/support/index.html>.

Sincerely yours,



Bram D. Zuckerman, M.D.  
Director  
Division of Cardiovascular Devices  
Office of Device Evaluation  
Center for Devices and  
Radiological Health

Enclosure

## Indications for Use

k052989

510(k) Number (if known): Unknown - not yet assigned by FDA

Device Name:

DP240, 240 Hour Doppler Probe

Indications For Use:

When used in conjunction with the CardioQ cardiac output and fluid status monitoring system, the DP240 is designed to provide clinicians with real-time information about left-ventricular blood flow. The DP240 is designed to operate in a clinical setting in which the patients are under general anesthesia or are sedated in the intensive care unit. The DP240 can be placed into the esophagus via oral or nasal insertion in adults.

Prescription Use   
(Part 21 CFR 801 Subpart D)

AND/OR

Over-The-Counter Use \_\_\_\_\_  
(21 CFR 801 Subpart C)

(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE IF  
NEEDED)

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Concurrence of CDRH, Office of Device Evaluation (ODE)

B. Hammama  
(DOD Sign-Off)  
Division of Cardiovascular Devices  
510(k) Number K052989

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